

# Technical Datasheet

Pozzolana® 212 AVC – Version 3.0 – English – Revision: 15.8.2020



## Pozzolana® 212 AVC

MINERAL SILICATE ANTI-VIBRATION & CRACKS COMPOUND

Pozzolana® 212 AVC is an innovative, eco-friendly, fast-setting, multi-purpose, professional grade self-leveling product used for anti-vibration/cracks underlayment. The product is designed to create a barrier layer between the substrate and the topcoat to minimize the risk of cracks migrating from the substrate to the top layer. In addition, this intermediate layer also helps to reduce vibrations and noises coming from the subfloor.

Pozzolana® 212 AVC by itself can be applied in thickness of 3mm-10mm in one single application. The product can be pigmented to match the color of the topcoat.

### Properties

- Advanced silicate-binder technology, environmentally friendly, non-toxic, no allergic potential.
- Inorganic materials, no VOC or APEO. Low emission (EC1 PLUS).
- Fast setting and minimizes waiting time.
- Wide range service temperatures; resistant to subzero temperatures, extreme heat and thermal shocks.
- Does not create ASR and no efflorescence.
- Adhere well to many types of surfaces especially smooth surfaces such as ceramic tiles, stone slabs, glass surfaces, etc.
- Water vapor permeable, no water stagnation in humid weather.
- Can be applied onto surface which contains calcium sulfate or magnesium carbonate.
- Comply with anti-static requirements (DIN EN 6134- <1000 MΩ).
- Can withstand water pressure up to 1.5 bar.
- Easy and fast in application.

### Technical information

<b>Strength class</b> (DIN EN 13813)	CT-C40-F8
<b>Abrasion resistance</b> (BCA)	AR 0.5
<b>Application temperature</b>	+5°C to +45°C
<b>Workability time @ 20°C</b>	approx. 30 minutes 3mm -
<b>Application thickness</b>	10mm / 1 layer
<b>Load capacity (curing @ 25°C)</b>	
Walkable / ready for covering	after 4 hours
Ready for polishing, coating	after 12 hours
Fully loadable (indoor)	after 4 days
Fully loadable (outdoor)	after 7 days
<b>Water mixing ratio</b>	4 liters / bag 20 kg
<b>Strength</b> (DIN EN 13892)	
Compressive strength	min. 20 N/mm <sup>2</sup>
Flexural strength	min. 5N/mm <sup>2</sup>
Bonding strength	min. 1.2 N/mm <sup>2</sup>
<b>Slip resistance</b> (DIN 51130)	
Original	R10
Adding other materials	R11-R13
<b>Consumption</b>	1.0 kg/m <sup>2</sup> /mm.
<b>Density</b>	
Bulk density	approx. 1.2 kg/dm <sup>3</sup>
Fresh mortar density	approx. 2.0 kg/dm <sup>3</sup>
<b>Original colors</b>	grey
<b>Chemical resistance</b>	pH 4 – 14 (with protection)
<b>Heat resistance</b>	-40°C to 500°C
<b>Fire rating</b> (DIN EN 13813)	A2

### Range of usage

- Indoors, outdoors, areas with extreme weather conditions, or difficult application environment, areas require fast application or require application of different thickness layers on a surface.
- Main areas of application are factories, warehouses, parking lots, airports, seaports, etc.
- Other areas of application include shopping centers, office complexes, exhibition halls, resorts, hotels, restaurants, luxury housing, hospitals, schools, parks, stadiums, sport centers, etc.

### Packaging, shelf life and storage

- 20kg paper bags. The shelf life of 12 months from the date of manufacture is printed on the packaging.
- Store in a cool, dry area with stable or controlled temperature (not < 0°C, preferably 10°C - 25°C). Place products on a pallet, at least 300mm above the floor. Seal the opening immediately after taking a portion for use.

### Application design system

- Primer Pozzolana® 120 APM or equivalent
- Body coat Pozzolana® 212 AVC

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## Preparation of substrate

Substrate surface prior to application of Pozzolana® 212 AVC should satisfy the following conditions:

- New concrete or screed shall have a minimum age of 28 days, to allow the slab to stabilize over this period to minimize risk of cracks due to shrinkage or structural movement.
- The surface shall be dry, clean, rough enough and free of all kinds of impurities.
- Surface preparation using methods such as shot blasting, scarifying or grinding is recommended.
- For porous and water-permeable substrate surfaces, shall apply Pozzolana® 120 APM primer or an equivalent product. When applying primer, ensure that the substrate is fully sealed so to avoid air bubbles being created and also to prevent water in the Pozzolana® 212 AVC layer from penetrating into the substrate, it may affect the quality.
- Wait for the primer to dry enough within 2 hours then apply the coating. In case the primer has been dried for more than 6 hours, it is necessary to reapply new primer before starting the coating. The drying time of the primer may vary depending on temperature and environment conditions. Please refer to the product technical datasheet of Pozzolana® 120 APM for more information.

## Mixing and apply Pozzolana® 212 AVC

### Water Mixing

Pour the required amount of clean water into the mixing bucket (5.0 liters of clean water for the original 20kg Pozzolana® 212AVC – equals 25% by weight). The amount of water may change depending on the application conditions at the site

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### Mixing and apply

It is recommended to use adjustable high-speed batch mixers, especially those designed specifically for mixing self-leveling screeds which blend powder with water. Please refer to the mixers provided by manufacturers such as PORTAMIX, COLLOMIX, etc. For manual applications the hand-held mixer BSM 2882 by Baier Tools and the Collomix mixing paddle DLX 152 HF are recommended. By using the respective mixing paddle, a proper thread adapter must be used. For small applications use a hand-held mixer of at least 600RPM fitted with Helix paddle or Collomix DLX 152 HF.

- Step 1. Put 0.20 kg fiber in every Pozzolana® 212 AVC Series bag. Turn on the mixer, keep at slow speed, slowly pour it all into the mixing bucket that has enough water for a period of 30 seconds to 1 minute.
- Step 2. Switch the mixer to high speed ( $\geq 600$ RPM) and keep mixing continuously for 2 minutes. Use a hand shovel or hand trowel to brush off the powder on the mixing drum surface and mixing paddle.
- Step 3. Turn off the mixer and wait for 1-2 minutes. This time will allow the powder to hydrate adequately with water and help to release the air from mixture.
- Step 4. Continue mixing at medium speed for 1 minute to ensure the powder and water are completely mixed before pouring.
- Step 5. Spread mixed material evenly over the floor.
- Step 6. Use the level spreader and gauge rake for self-leveling to lay the mixture with the specified thickness on the floor surface.

## Application tools and cleaning

- Adjustable high-speed batch mixer, hand trowel, spike shoes and self-leveling gauge rake.
- All application machines and tools should be cleaned immediately with clean water after use. Wasted water and spilled materials need to be collected and handled properly to ensure safety for the environment and people.

## Attention

- Always apply Pozzolana® 120 APM primer or equivalent on surfaces which is to receive Pozzolana® silicate mortars including repaired spots or filled joints before starting the next Pozzolana® topping.
- The floor surface after application must be protected from drying too quickly (away from wind or high temperatures) for at least 24 hours. Do not cover the finished surface during this time.
- In case of application outdoors, in direct sunlight or in areas with strong winds, it is necessary to cover the application areas against the phenomenon of surface drying too quickly.
- In the case of using a batch mixer, the instructions for use of this machine shall be carefully read.
- Some minor difference in color that might occur is unavoidable by different production batches.
- Products need to be applied by professional applicators that have been trained and certified by production company or authorized partners. Finish product quality may vary depending on the management skills, experience, technical understanding, workmanship, application equipment and tools of each applicator.

## Safety Information

- There is no mandatory hazard labeling required for the Pozzolana® 212 AVC. Avoid inhalation of dust when opening the bag. Protect skin and eyes during mixing and application.
- Please refer to the Safety Data Sheet for more information on safety during the transportation, storage, lifting and handling of waste. Follow the instructions on the packaging and related documents.

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## Note

Always carefully read the application instructions for the above products before applying. Before adding any additional material shall always test and do trials before applying on site. As materials in different locations often have different properties that can make a difference on the quality of the final product.

## Disclaimer

The content of this technical datasheet corresponds to the latest developments and our experiences. All information is based on ideal conditions and therefore may not be completely accurate in actual construction. Due to different types of materials, surfaces and actual construction conditions, guarantees are not given for applications. We are not liable for this information or any verbal statements. The only exception is when we can be blamed for willful negligence in liability. In that case, the customer must prove that he has fully and promptly transmitted all necessary information to us for examination and resolution. Any other details relating to the construction of our products must be confirmed in writing by us. The customer must check the suitability of the product for the intended application and purpose. We reserve the right to change the specifications of products due to ongoing development. In addition, our general terms and conditions are valid. This product documentation supersedes all previous technical data on this product.



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